

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA**

**POLYMER DYNAMICS, INC.,
Plaintiff,**

v.

**BAYER CORPORATION,
Defendant.**

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CIVIL ACTION

NO. 99-4040

MEMORANDUM AND ORDER

Presently before this Court are Defendant Bayer Corporation's motions to exclude the expert testimony of Dr. Peter O. Staffeld (Doc. 126), Dr. David A. Johnson (Doc. 127) and Dr. A. Lawrence Kolbe (Doc. 128), Plaintiff Polymer Dynamic's brief in opposition (Doc. 134) and Defendant's reply brief (Doc. 138). The Court held a *Daubert* hearing in this matter on Thursday, April 7, 2005. For the reasons set forth below, this Court will **DENY** the motions to exclude the testimony of Drs. Kolbe and Johnson and **GRANT** the motion to exclude the testimony of Dr. Staffeld.

BACKGROUND

Plaintiff, Polymer Dynamics, Inc. ("PDI" or "Polymer") manufactures and sells polyurethane insoles and outsoles in the footwear industry. To further production, PDI purchased several machines to mix and shoot its polyurethane into molds from Defendant Bayer Corporation ("Bayer"). PDI selected the Bayer machines due to their unique mechanical composition and high shooting frequency. PDI experienced premature wear on the machinery's pintles,¹ an integral component of the shooting process. Bayer attempted to replace the pintles with more durable pieces manufactured by Bayer and the Bayer subsidiary, Boice Industrial Corporation ("Boice"). PDI found the

¹ A "pintle" is a usually upright pivot pin on which another part turns.

replacements insufficient and manufactured their own pieces. PDI instituted this claim seeking compensation for the damages allegedly caused by the Bayer machinery.

PDI seeks to submit expert testimony as to three aspects of their claim against Bayer. First, the Bayer machinery's pintles were subject to premature wear. Pl.'s Mem. at 7, 10. Second, worn pintles in the machinery caused poor polyurethane mixing, and poor mixing caused defective polyurethane products. *Id.* at 7, 20. Third, the alleged faults in the Bayer machinery resulted in economic damages to PDI due to poor production, lost sales and a damaged reputation. *Id.* at 6-7, 30. Bayer seeks to exclude, pursuant to Fed. R. Evid. 702,² the expert testimonies Polymer intends to offer at trial.

LEGAL STANDARD

When considering the admissibility of expert testimony, district courts must follow Fed. R. Evid. 702 and the standard outlined by the Supreme Court in *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579, 595 (1993). District courts must act as gatekeepers to assure that the methodology upon which an expert opinion is founded is reliable. *In re Paoli R.R. Yard PCB Litig*, 35 F.3d 717, 732 (3d Cir. 1994). *Daubert* creates three requirements for expert testimony. *United States v. Rutland*, 372 F.3d 543, 545 (3d Cir. 2004) (citations omitted). First, the witness must be qualified to give an expert opinion. A witness is qualified to give an expert opinion if that witness possesses some specialized knowledge, skill, training or education not available to a lay witness. *Calhoun v. Yamaha Motor Corp*, 350 F. 3d 316, 321 (3d Cir. 1994) (quotation omitted). Second, the expert's methodology must be reliable. *Daubert*, 509 U.S. at 595. The Court must focus

² The Court considered and rejected Defendant's argument based on Fed. R. Evid. 403. Rule 403 allows district courts to exclude relevant evidence if its probative value is *substantially outweighed* by the danger of unfair prejudice or confusion of the issues. Fed. R. Evid. 403 (emphasis added). Here, the Court finds that no such danger exists. All of Plaintiff's expert testimony focuses on specific elements of their claim. Any potential confusion does not meet the extremely high standard for 403 exclusion.

on the principles and methodologies underlying the testimony, not the conclusions generated. *Daubert*, 509 U.S. at 595. Factors affecting the reliability of an expert's methodology include: 1) whether the method has been subject to peer review, 2) the known or potential rate of error, and 3) the standards controlling the technique's operation. *Paoli*, 35 F.3d at 742 n. 8 (citation omitted). Third, the expert testimony must "fit" the facts of the case. *Daubert*, 509 U.S. at 591. Testimony fits the facts of the case if it will "assist the trier of fact" to either understand the evidence or determine a material fact at issue. *Id*

DISCUSSION

A. Motion to Exclude the Expert Testimony of Dr. Kolbe

Polymer seeks to offer Dr. Kolbe, an economist, for the purpose of estimating the economic damages that arose from Defendant's alleged misconduct. Dr. Kolbe opines that Plaintiff's damages are approximately \$68 million, lost profits of \$219 million and \$550,000 in costs have been incurred. Defendant offers three reasons for exclusion. Bayer argues that 1) Dr. Kolbe is not qualified to testify because he has no expertise in the shoe industry, 2) the methodology he used to come to his conclusions are unreliable, and 3) his opinion does not fit the facts of the case.

The Court finds that Dr. Kolbe is qualified to offer the jury an opinion on damages. Dr. Kolbe is established in the field of economics. He has a Bachelors of Science in International Affairs (Economics) from the United States Air Force Academy and a Ph. D. in Economics from the Massachusetts Institute of Technology. Pl.'s Mem. at 31; Pl.'s Mem. Exhibit 21. Additionally, Dr. Kolbe has conducted extensive research in financial economics and has served as an expert in other litigation. *Id*. The fact that a witness is not a specialist in a given specialty area does not disqualify that person from testifying as an expert in that field generally. *See e.g., United States v. Viglia*, 549

F. 2d 335 (5th Cir. 1977) (holding that a physician with no experience in treating obesity could opine on the effects of a controlled substance allegedly used for obesity).

Likewise, Dr. Kolbe's methodology is reliable. Dr. Kolbe provided lost profit projections by measuring the difference in anticipated sales and sales PDI was unable to make. Pl.'s Mem. at 33-34. Dr. Kolbe made projections in the "as is" case (what actually happened as a result of the alleged problems with the Bayer equipment) and in the "but for" case (what would have happened if the problems had not occurred). *Id.* at 36. According to Dr. Kolbe, both methods are widely used for economic damage analysis. *Id.* at 36-37. Bayer attacks Dr. Kolbe's assumptions and sources of his information as unreliable. Def.'s Kolbe Mem. at 5-7, 12-17. The Court does not agree. The assumption that a business will expand is reasonable. The likelihood and extent of that expansion are issues that should be argued to the jury. Dr. Kolbe's sources are acceptable as well. Here, Dr. Kolbe relied on the projected sales and anticipated income from reviewing PDI documents as well as other expert opinions within the polyurethane industry. An expert is justified in relying on another's information when forming opinions. Fed. R. Evid. 703; *United States v. Arias*, 678 F.2d 1202, 1206 (4th Cir. 1982) *cert. denied*, 495 U.S. 910 (holding that under Fed.R.Evid. 703, an expert may base his testimony upon the type of hearsay he would normally rely upon in the course of his work).

Dr. Kolbe's testimony fits the facts of the case. Bayer objects that Dr. Kolbe did not consider all of the causes of lost sales. Def.'s Kolbe's Mem. at 8-9. However, that issue does not render Dr. Kolbe's testimony inadmissible. Bayer is free to cross-examine Dr. Kolbe at trial and make this argument to the jury. Therefore, Defendant's motion to exclude Dr Kolbe's testimony is denied.

B. Motion to Exclude the Expert Testimony of Dr. Staffeld

Dr. Staffeld, a PDI employee, offers testimony that Bayer's pintles wore down prematurely and that the PDI formula did not cause the wear. Pl.'s Mem. at 10. Dr. Staffeld conducted two experiments to measure the rate of pindle wear. *Id.* The first experiment compared the pindle wear rates; the second experiment analyzed the PDI pintles after flow of polyurethane formulas containing different levels of pigments and desiccants. *Id.* The Court finds Dr. Staffeld's methodology unreliable. While Dr. Staffeld did use the scientific method to perform his experiments, the actual tests he conducted lacked reliability.³ First, Dr. Staffeld's pindle experiment compared used Bayer pintles against new PDI pintles. Def.'s Staffeld Mem at 3-4, 12; April 8 Tr. at 41, 49. In fact, Dr. Staffeld did not know how often the Bayer pindle was used before his experiment. *Id.* at 12; April 8 Tr. at 53 - 55. A second problem with Dr. Staffeld's experiment is the size of his sample group. Dr. Staffeld only performed one test on the Bayer pindle and one on the Boice pindle. April 8 Tr. at 56. Lastly, Dr. Staffeld's experiment contained an unacceptable margin of error. Pl.'s Mem. Exhibit B. The margin for error in Dr. Staffeld's first experiment was twenty-five percent (25%). Pl.'s Mem. Exhibit B; Apr. 8 Tr. at 99-99. The margin for error in the sixth experiment is approximately fifty-five percent (55%). Pl.'s Mem. Exhibit B; Apr 8 Tr. at 99. As a result of Dr. Staffeld's unreliable methodology, Defendant's motion to exclude Dr. Staffeld is granted.

C. Motion to Exclude the Expert Testimony of Dr. Johnson

Dr. Johnson specializes in fluids engineering as an Assistant Professor at the University of Waterloo. Pl.'s Mem. at Exhibit 20. Polymer offers Dr. Johnson as an expert in the field of

³ As stated above, Dr. Staffeld's testimony is not admissible because his methodology was too unreliable. However, the Court notes that Bayer's objections regarding qualifications and fit were not sufficient to exclude Dr. Staffeld's testimony. Because Dr. Staffeld's testimony is to be excluded, it is not necessary to elaborate.

mechanical engineering, impingement mixing and laminar jets. Pl.'s Mem. at 20. If allowed to testify, Dr. Johnson would support the position that worn pintles in the Bayer machinery caused poor formula mixing. *Id.* Poor mixing resulted in defective products and thereby harmed PDI. *Id.* In his experiment, Dr. Johnson mixed chemicals and analyzed their fluid flow over pintles to reach his conclusions. *Id.* A review of the record finds that Dr. Johnson meets the requirements of Fed. R. Evid. 702, and he will be permitted to testify.

Dr. Johnson is qualified to testify at trial. Bayer argues that Dr. Johnson lacks expertise because his testimony extends beyond his demonstrated experience. Def.'s Johnson Mem. at 9-12. However, Dr. Johnson has designed and experimented with his own and other impingement mixheads, which are similar in purpose to the Bayer machinery. Pl.'s Mem at 29. Additionally, Dr. Johnson has experience with polyurethane and polymers and has been published in the areas of flow visualization and impingement mixing. *Id.*

The Court finds that Dr. Johnson's methodology is reliable. Bayer claims that Dr. Johnson's PDI model did not match the Bayer mixhead "in a number of critical aspects." Def.'s Johnson Mem. at 13-14. Bayer also objects to Dr. Johnson's use of mineral oil in his experiment instead of polyurethane. *Id.* at 14. Nonetheless, the Court finds Dr. Johnson's methodology was reliable. Dr. Johnson's PDI model and the Bayer machinery are substantially similar. Polymer created the PDI model using the design and blueprints of the Bayer machine's interiors. Pl.'s Mem. at 21. According to Polymer, the absence of the transverse piston is immaterial because it is not part of the fluid mixing process. *Id.* at 22-23. Polymer compensated for the lack of hydraulically activated injectors by using pressurized air to hold the injectors in place. *Id.* at 24. Also, Dr. Johnson's use of mineral oil in his test was appropriate. Dr. Johnson testified that the use of mineral oil is standard

practice for measuring flow visualization and mixing because its transparent nature provides for better visualization of mixing processes. *Id.* at 26-27. Moreover, PDI presented evidence that before Bayer sends its machines to customers, they test those machines with fluid similar to mineral oil. *Id.* Any differences between the experiment of Dr. Johnson and the actual operation of the Bayer machinery goes to the weight of Dr. Johnson's testimony, not its admissibility.

Dr. Johnson's testimony does fit the facts of the case. Bayer contends that Johnson's experiment does not fit the facts of the case because it did not simulate the real life conditions of the Bayer machinery's use. Def.'s Kolbe Mem. at 16. Johnson, Bayer argues, does not consider the different shooting rates of the machinery, different measurements between the two pieces of machinery and that different chemicals were used in the two machinery. *Id.* However, Dr. Johnson's testimony fits the facts of the case because it will assist the jury in determining the effects of Bayer pintels on the production of the polyurethane mixture, impingement mixing and fluid engineering. Thus, Dr. Johnson's testimony is admissible.

CONCLUSION

Based on the aforementioned, it is clear to the Court that the testimony of Doctors Kolbe and Johnson meets the *Daubert* standard of admissibility and that the testimony of Dr. Staffeld does not. Therefore, **IT IS HEREBY ORDERED** that the motions to exclude the expert testimony of Dr. Kolbe and Dr. Johnson are **DENIED** and the motion to exclude the testimony of Dr. Staffeld is **GRANTED**. An appropriate Order follows.

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ORDER

AND NOW, on this 2nd day of May, 2005, upon consideration of Defendant Bayer Corporation's motions to exclude the expert testimony of Dr. Peter O. Staffeld (Doc. 126), Dr. David A. Johnson (Doc. 127) and Dr. A. Lawrence Kolbe (Doc. 128), Plaintiff Polymer Dynamic's brief in opposition (Docs. 134), Defendant's reply brief (Docs. 138) and evidence presented by the parties at the *Daubert* hearing in this matter on April 7 and 8, 2005. **IT IS HEREBY ORDERED** that:

1. The motion to exclude the expert testimony of Dr. Kolbe is **DENIED**.
2. The motion to exclude the testimony of Dr. Staffeld is **GRANTED**.
3. The motion to exclude the testimony of Dr. Johnson is **DENIED**.

BY THE COURT:

/S/ Petrese B. Tucker

Hon. Petrese B. Tucker, J.